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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,449

12/27/2005

Eiji Shiba

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3547

22428 7590 04/30/2010  
FOLEY AND LARDNER LLP  
SUITE 500  
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EXAMINER

ZEMEL, IRINA SOPHIA

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/30/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,449	<b>Applicant(s)</b> SHIBA ET AL.	
	<b>Examiner</b> Irina S. Zemel	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of WO 02/14423 to Kuraray Co., (hereinafter "Kuraray") or JP 001-26663 to Sanwa Kako KK., (hereinafter "Sanwa") in combination with EP 1229076 to Mitsui Chemicals, INC., (hereinafter "Mitsui").

The rejection stands as per reasons of record.

As discussed in the previous office action, addition of EVA copolymers to compositions of either Sanwa or Kuraray would have been obvious from the disclosure of Mitsui, which disclosure expressly teaches that addition of EVA copolymers to ethylene based foaming composition in the amounts corresponding to the claimed amounts results in improved tear strength of the foams, see, for example, [0047-50] and examples of Mitsui. The reference expressly discloses that addition of EVA optional component "in a proportion of more than 0 part by weight to 1,900 parts by weight, preferably 5 to 1,900 parts by weight, based on 100 parts by weight of the ethylene/c~-olefin copolymer (A). When the ethylene/vinyl acetate copolymer (C) is used in the above proportion, an elastomeric composition that can provide a crosslinked foam having **excellent tear strength** can be obtained" (emphasis added). See [0050 of the Mitsui reference. This disclosure of the reference clearly provides enough motivation for an ordinary artisan to add such components to obtain foamed compositions of

Art Unit: 1796

excellent tear strength, at the very minimum for using EVA as a functional equivalent of the other mandatory polymeric components of the blends.

### ***Response to Arguments***

Applicant's arguments filed 1-27-2010 have been fully considered but they are not persuasive. The applicants argue that Mitsui does not teach that addition of EVA improves tear strength and “only discloses that a composition comprising EVA copolymer that has excellent tear strength could be obtained. (Mitsui, paragraphs 47-50.)” The examiner is of the opinion that expressed teachings that by addition of “EVA crosslinked foam having excellent tear strength can be obtained” clearly constitutes such teachings. At the very minimum, as discussed above, it teaches that the optional component is a functional equivalent of the other polymeric components since its addition does not cause tear strength properties to worsen.

The applicants state that “Mitsui, however, is silent concerning the possible effects that increasing or decreasing EVA level might have on tear strength improvement in tear strength. This arguments is not persuasive as the reference teaches a broad range of suitable amounts of EVA and varying the EVA level within those expressly disclosed amounts would have been obvious with reasonable expectation of success, i.e., obtaining a composition with excellent tear strength, not to mention it would have been clearly within routine experimentation.

The applicants further refer to the data in experimental examples and argue that no improvement in tear strength is noted by adding EVA. As

Art Unit: 1796

mentioned by the applicants, those results can not be directly compared, but what is clear is that the tear strength and other properties do not deteriorate by adding of EVA, and are very comparable to the properties of the compositions not having EVA. Once again, in light of the expressed teaching that addition of EVA results in "crosslinked foam having excellent tear strength can be obtained", such addition is still considered to have been obvious with reasonable expectation of success, which is further evident from the data in the Tables, of Mitsui. The applicants argue that addition of EVA decreases tear strength as per the results in applicants own table 2 (page 42). The results in Table 2 are mere cumulative results of tear strength since as evident from the applicants Table 2, EVA, by itself, has much lower tear strength. Decrease in the tear strength property may have been unexpected from the disclosure of Mitsui however, the only example of the instant application relied upon, i.e., example 5, is neither probative, nor commensurate in scope with the claimed invention. In addition, as pointed out by the applicants," taken as a whole, Mitsui Table 1 non-EVA compositions have tear strengths of 2.7-3.3 kg/cm, while Mitsui Table 2 EVA compositions have tear strengths of 2.6-3.0 kg/cm," which suggest that even though the compositions of excellent tear strength can be obtained by adding EVA, some variations in tear strength is expected.

The applicants further argue that the compositions of their invention, i.e., compositions containing (A2) copolymer exhibit improved properties such as lower density and better adhesion to polyurethane. While it is so when the properties compared to the compositions not containing (A2), the improvement in

Art Unit: 1796

the properties is a simple cumulative results of adding EVA copolymers to the compositions, as those copolymers by themselves exhibit lower density and much better adhesive properties as evident from the applicants Table 2, Comparative example 3. Thus, even though the results are improved as compared to the compositions not having (A2) copolymers, the results are completely expected and mere cumulative.

The invention as claimed, therefore, is still considered to have been obvious over the combined teaching of the cited references and no unexpected results that can be attributed to the presence of (A2) copolymers are presented on the record.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1796

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/  
Primary Examiner, Art Unit 1796

Irina S. Zemel  
Primary Examiner  
Art Unit 1796

ISZ